

What is claimed is:

1. A sparring apparatus comprising a striking target attached to a rotating mechanism for rotating the striking target substantially about a substantially vertical axis, the striking target having sensors which detect a blow to the striking target.
- 5 2. The apparatus of claim 1, wherein the rotating mechanism comprises a motor.
3. The apparatus of claim 2, wherein the motor is a servo motor.
4. The apparatus of claim 3, wherein the servo motor is selected from the group consisting of: variable reluctance stepping motors, permanent magnet stepping motors, and hybrid stepping motors.
- 10 5. The apparatus of claim 3, wherein the motor has an angular resolution of greater than 90 degrees per step.
6. The apparatus of claim 3, wherein the motor has an angular resolution of less than .72 degrees per step.
7. The apparatus of claim 3, wherein the motor is controlled by a control unit.
- 15 8. The apparatus of claim 7, wherein the control unit is selected from the group consisting of computer, PLC, CPU, chip prom, and single chip micro-processor.
9. The apparatus of claim 7, wherein the control unit includes a program to move the motor in pre-designed sequences of movements.
10. The apparatus of claim 7 wherein the control unit includes a program to move the motor in sequences of movements determined by a random number generator.
- 20 11. The apparatus of claim 10 wherein the random number generator generates values for determining the direction of the movement, the degrees of rotation of the movement, the time interval of the movement.
12. The apparatus of claim 1, wherein the striking target includes a portion resembling at least a portion of a human form.
- 25 13. The apparatus of claim 1, wherein at least one elongate member extends from the striking target.
14. The apparatus of claim 1, wherein the striking target includes specific targets.
15. The apparatus of claim 1, wherein the striking target can rotate over 360 degrees.
- 30 16. The apparatus of claim 7 wherein sensors are disposed within sparring gloves and sparring shoes, the sensors capable of being identified by the control unit such that a record can be made of which foot or which hand struck the striking target.
17. The apparatus of claim 7 wherein the control unit initiates a timer upon sending a movement command to the motor, the timer designed to stop when the striking target

is struck, the time between the sending of the movement command and the striking of the striking target capable of being recorded by the control unit or printed.

18. The apparatus of claim 7 wherein sensors communicating to the control unit are disposed within the striking apparatus at certain locations in order to record the

5 location struck on the striking target by a user.

19. The apparatus of claim 18 wherein the sensors communicate to the control unit through wires or through a wireless system.

20. The apparatus of claim 16 wherein the sensors communicate to the control unit through wires or through a wireless system.

10 21. A sparring apparatus resembling a human torso and head comprising a striking target and a programmably controlled mechanism for rotating the striking target about a substantially vertical axis.

22. The apparatus of claim 21, wherein the mechanism is a stepping motor.

15 23. The apparatus of claim 22, wherein the stepping motor is controlled to run in half-steps or microsteps.

24. The apparatus of claim 21, wherein the mechanism is controllably programmed to randomly execute specific sequences of moves.

20 25. The apparatus of claim 21 wherein sensors are disposed within the striking target, sparring gloves and sparring shoes, the sensors capable of being identified by the apparatus such that a record can be made of which portion of the target was struck and which foot or which hand struck the striking target.

26. The apparatus of claim 21, wherein the striking target is programmed to speak.

27. The apparatus of claim 21, wherein the striking target is affixed to a rotating base.

25 28. The apparatus of claim 27, wherein the rotating base has a friction reducing portion.

29 The apparatus of claim 28, wherein the friction reducing portion is selected from the group consisting of rolling units, coasters, ball bearings, balls, wheels, liquid lubricant, gel lubricant, or graphite.